Advanced Programming 3

Assessed Exercise 2

Report

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Status report

For the first part of the exercise I have used the given implementation in C to get familiar with the exercise requirements. Then I have implemented the same single thread solution in Java. It seems that is working correctly because I have compared the output against the C solution you have given us. At first I had problems with circular dependences but then I fixed the bug. All data structures that I am using are concurrent. I have used the following data structures:

- java.util.concurrent.ConcurrentHashMap;

- java.util.concurrent.ConcurrentLinkedQueue;

- java.util.concurrent.CopyOnWriteArrayList;

Then I have implemented the Runnable interface and I have implemented the run method, which is needed to start a thread. Also I belive that I am keeping all the threads alive until the last thread is finished. I have tested my program with 9000 threads and I saw that is working properly.